

Title (en)

VARIABLE MAGNIFICATION AFOCAL TELESCOPE ELEMENT

Title (de)

AFOKALES TELESKOPELEMENT MIT VARIABLER VERGRÖßERUNG

Title (fr)

ÉLÉMENT DE TÉLESCOPE AFOCAL À GROSSISSEMENT VARIABLE

Publication

EP 4014090 A4 20221012 (EN)

Application

EP 20852364 A 20200814

Priority

- US 201962886907 P 20190814
- US 201962886912 P 20190814
- US 2020046443 W 20200814

Abstract (en)

[origin: WO2021030718A1] Apparatus include a plurality of laser diodes configured to emit respective laser diode beams having perpendicular fast and slow beam divergence axes mutually perpendicular to respective beam axes, and beam shaping optics configured to receive the laser diode beams and to circularize an ensemble image space and NA space of the laser diode beams at an ensemble coupling plane. In selected examples, beam shaping optics include variable fast axis telescopes configured to provide variable fast axis magnification and beam displacement.

IPC 8 full level

G02B 19/00 (2006.01); **G02B 6/42** (2006.01); **G02B 27/09** (2006.01); **G02B 27/10** (2006.01); **G02B 27/12** (2006.01); **H01S 5/02251** (2021.01); **H01S 5/40** (2006.01); **H01S 5/00** (2006.01)

CPC (source: EP US)

G02B 6/4206 (2013.01 - US); **G02B 19/0014** (2013.01 - EP US); **G02B 19/0057** (2013.01 - EP US); **G02B 27/0905** (2013.01 - EP US); **G02B 27/106** (2013.01 - EP); **G02B 27/123** (2013.01 - EP); **G02B 27/30** (2013.01 - US); **H01S 5/02251** (2021.01 - EP); **H01S 5/02315** (2021.01 - US); **H01S 5/4012** (2013.01 - EP US); **H01S 5/4025** (2013.01 - US); **G02B 6/4214** (2013.01 - EP); **G02B 6/4296** (2013.01 - EP); **G02B 27/0955** (2013.01 - EP); **H01S 5/005** (2013.01 - EP); **H01S 5/0071** (2013.01 - EP)

Citation (search report)

- [XII] GB 1530066 A 19781025 - PHILIPS ELECTRONIC ASSOCIATED
- [I] US 2017235057 A1 20170817 - HEMENWAY DAVID MARTIN [US], et al
- See also references of WO 2021030721A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2021030718 A1 20210218; CN 114556192 A 20220527; CN 114556192 B 20240705; CN 114585960 A 20220603; EP 4014089 A1 20220622; EP 4014089 A4 20221026; EP 4014090 A1 20220622; EP 4014090 A4 20221012; JP 2022544286 A 20221017; JP 2022544500 A 20221019; US 2022382028 A1 20221201; US 2022385043 A1 20221201; WO 2021030721 A1 20210218

DOCDB simple family (application)

US 2020046440 W 20200814; CN 202080071799 A 20200814; CN 202080071802 A 20200814; EP 20851767 A 20200814; EP 20852364 A 20200814; JP 2022508811 A 20200814; JP 2022508812 A 20200814; US 2020046443 W 20200814; US 202017634912 A 20200814; US 202017634914 A 20200814